

REMARKS

Reconsideration of this application is respectfully requested. Claims 4, 9, 10, 11, 13, 14, 15, 16 and 19 have been amended. Claims 1-16 and 18-19 are in this application and are presented for the Examiner's consideration in view of the following comments.

Drawing Objections

The Examiner has objected to the drawings because, according to the Examiner, Figures 1 to 10 and 12 to 15 lack the label "Prior Art" and only that which is old is illustrated these figures.

With respect to Figure 2, Applicants note that this figure is already labeled as prior art.

With respect to Figure 3, Applicants have amended Figure 3 to state "Prior Art" and a replacement sheet is attached hereto.

With respect to Figures 1, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14 and 15, Applicants respectfully disagree. In particular, the Examiner should consider the following statement in Applicants' specification:

Figure 1 shows a video receiver trellis decoder system 24, **according to the invention**, for decoding multiple interleaved datastreams such as data encoded according to the HDTV Standard, for example.

Applicants' specification, p. 4, lns. 26-28, emphasis added.

In other words, Figure 1 illustrates an embodiment of the invention and is not prior art. Likewise, Figures 4, 5, 6, 7, 8, 9, 10, 13, 14 and 15 relate to the operation of the apparatus shown in Figure 1 and are not prior art. Finally, Figure 12 clearly shows trellis decoder 24 of Figure 1 and, as such, is not prior art.

In view of the above, Applicants respectfully submit that the objection to the drawings has been overcome.

Claim Objections

The Examiner has objected to claims 3, 4, 7, 15, 16 and 19. Applicants have amended claims 4, 15 and 19, and respectfully disagree with respect to claims 3 and 7.

With respect to claims 3 and 7, the Examiner suggests amending these claims to recite the phrase "the feed-back." Applicants respectfully decline. First, there is no antecedent basis for this phrase in the respective independent claims 1 and 5. Second, Applicants submit that these claims are clear on their face and would be understandable to one skilled in the art.

With respect to claims 4 and 15, Applicants have deleted the phrase cited by the Examiner. As noted by the Examiner, the amendment of claim 15 removes the basis of the objection to claim 16.

With respect to claim 19, Applicants have made the changes suggested by the Examiner.

In view of the above, Applicants respectfully submit that the objection to the claims has been overcome.

35 U.S.C. § 112, First Paragraph Claim Rejections

The Examiner has rejected claims 4, 10 and 11 under 35 U.S.C. § 112, first paragraph, because, according to the Examiner, Applicants' disclosure is not enabling. Applicants respectfully disagree.

With respect to claims 4 and 10, if Applicants' representative understands the Examiner's reasoning, the Examiner is stating that since these claims do not require the steps of providing, generating or computing the *candidate values* these claims are defective since Applicants' specification does not describe an embodiment that is devoid of these steps. Respectfully, the Examiner analysis is wrong.

First, the Examiner's application of *In re Mayhew* to Applicants' claims 4 and 10 misses the mark. *In re Mayhew* describes claims that failed to recite any requirement related to a cooling zone and its location - requirements that were indicated as "special" in Mayhew's patent application. In contrast, Applicants' claims 4 and 10 already require

candidate values and nowhere does Applicants' specification describe or suggest anything "special" about the *candidate values*.

Second, while it could be argued that Applicants' claims 4 and 10 are broad, merely requiring *candidate values* — these claims are supported by Applicants' specification. (For example, see p. 21 ln. 29 to p. 22, ln. 25 of Applicants' specification.)

Third, Applicants' respective independent claims 1 and 5 clearly include the transitional phrase "comprising". In other words, the claims 1 and 5, and dependent claims therefrom, are "open-ended." As such, these claims can include other steps not specifically required.

Fourth, what the Examiner regards as Applicants' invention is irrelevant. It is the function of the claims to "particularly point out and distinctly claim the subject matter that Applicant regards as his invention." (35 U.S.C. § 112, second paragraph, emphasis added.) As such, it is improper for the Examiner to require that Applicants amend claims 4 and 10 to include requirements for providing, generating or computing the *candidate values*.

In view of the above, Applicants respectfully submit that the rejection of claims 4 and 10 under U.S.C. § 112, first paragraph, has been overcome. Consequently, the basis for the rejection of claim 11, which depends from 10, has also been removed.

35 U.S.C. § 112, Second Paragraph Claim Rejections

The Examiner has rejected claims 4, 9, 10, 11, 14, 15 and 16 under 35 U.S.C. § 112, second paragraph. Although Applicants do not agree, Applicants have amended claims 4, 9, 10, 11, 14, 15 and 16 in the interests of furthering prosecution.

With respect to claim 4, Applicants have amended claim 4 to state:

comparing candidate values representative of distance between said delayed data and said difference data, to determine a minimum distance value, and

if more than one candidate value has the same determined minimum distance value, resolving this equality in response to a prior delayed and fed back comparison representative output.

Applicants respectfully submit that this amendment makes clear that in those situations where more than one candidate value has the same minimum distance value, this equality is resolved "in response to a prior delayed and fed back comparison representative output."

Similar amendments have been made to claims 10 and 15.

With respect to the Examiner's assertions that claims 4, 10 and 15 fail "to clearly indicate the subject matter of how to compare candidate values to determine minimum distance values" or "how to resolve equality," Applicants respectfully note that it is not the function of the claims to teach how to practice the invention. The subject matter of claims 4, 10 and 15 are clearly supported by p. 22, lns. 8-25, of Applicants' specification.

With respect to claim 9, Applicants have amended claim 9 to require "absolute distances." Applicants respectfully submit this amendment removes the basis for the Examiner's rejection of claim 9.

With respect to claim 11, Applicants have deleted the phrase "between candidate minimum distance values." As such, the basis for the rejection has been removed.

With respect to claims 14, 15 and 16, Applicants have amended these claims to refer to a "processor for demapping" for which antecedent basis is provided by amended independent claim 13.

With respect to claim 16, Applicants have deleted the phrase "between candidate distance values." As such, the basis for the rejection has been removed.

In view of the above, Applicants respectfully submit that the rejection of claims 4, 9, 10, 11, 14, 15 and 16 under 35 U.S.C. § 112, second paragraph, has been overcome.

35 U.S.C. § 102(e) Rejection

The Examiner has rejected claims 1-3, 5-8, 12-13 and 18-19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,914,988 issued June 22, 1999 to Hu et

al. ("*Hu*"). Applicants respectfully maintain their disagreement as stated in Applicants' Appeal Brief filed on November 24, 2004, which is incorporated by reference herein.

In addition to the arguments provided in Applicants' Appeal Brief, Applicants also offer the following observations to the Examiner's latest characterization of *Hu*.

The Examiner states that *Hu* describes processing:

the re-encoded symbol data sequentially (column 13 lines 49-51) to produce difference data representative [sic] **based** on the RE-ENCODED DATA from the re-encoder (unite [sic] 50) and the delayed version of the re-encoded data (one symbol delay via 965 FIGURE 11).

Office Action, p. 7, emphasis added.

First, Applicants claims require producing "difference data representative of a difference between successive symbols of said re-encoded symbol data." As such, the Examiner's assertion that *Hu* produces difference data based on the re-encoded data misses the point. **This in not what applicants' claims require.** Applicants' independent claims require "difference data representative of a difference between successive symbols of said re-encoded symbol data." Nowhere does *Hu* describe or suggest this requirement of Applicants' claims.

Second, nowhere does *Hu* describe or suggest producing "difference data representative of a **difference between successive symbols of said re-encoded symbol data.**" As is clearly shown in FIG. 11 of *Hu*, the re-encoded symbol is directed to MUX 970 (via delay element 965) and to look-up table 960 (to determine the coset). (*Hu*, col. 14, lns. 22-23; col. 13, lns. 61-62). Indeed, since look-up table 960 only responds to the current re-encoded symbol and the re-encoded symbol data (via delay element 965) is only used to select a constellation point from element 985 — it is not possible for these elements as shown and described in *Hu* to provide "difference data representative of a **difference between successive symbols of said re-encoded symbol data**" as required by Applicants' independent claims.

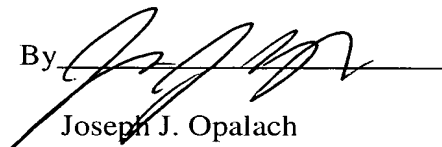
In view of the above, Applicants respectfully submit that independent claims 1, 5, 13 and 18 are patentable over *Hu*. Consequently, the rejection of dependent claims 2-3, 6-8, 12 and 19 has also been removed.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicants' attorney in order to overcome any additional objections that the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefor.

Respectfully submitted
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CERTIFICATE OF MAILING

I hereby certify that this amendment is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, Box 1450, Alexandria, Virginia 22313-1450 on:

6-3-05
Date

Nicki Diamond
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Amendments to the Drawings

Please substitute the attached drawing sheet for FIGs. 2 and 3 for the corresponding figures currently on file with the application.

Attachment: Replacement drawing sheet for FIGs. 2 and 3.